

October 3, 2001

Ms. Kellee Cobb
Reclaimed Energy Company, Inc.
1500 Western Avenue
Connersville, IN 47331

Re: **041-14835-00015**
First Administrative Amendment to
Part 70 041-6719-00015

Dear Ms. Cobb:

Reclaimed Energy Company, Inc. was issued a permit on June 1, 2001 for a stationary chemical recycling operation. A letter requesting an administrative amendment for the replacement of an existing 12,000 gallon carbon steel spent volatile organic compound waste and still bottoms storage tank (Tank 39) with a new 10,500 gallon spent volatile organic compound waste and still bottoms storage tank (to be identified as Tank 39), was received on August 21, 2001. Pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as described in the attached technical support document.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following technical support document and revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

SDF

cc: File - Fayette County
Fayette County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR QUALITY**

**Reclaimed Energy Company, Inc.
1500 Western Avenue
Connersville, Indiana 47331**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 041-6719-00015	Date Issued: June 1, 2001
First Administrative Amendment No.: T 041-14835-00015	Affected Pages: 9, 36, and 44
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Date Issued: October 3, 2001

- (nn) One (1) product storage tank, known as EU-TK 39, installed in 2001, vented to a catalytic thermal oxidizer, capacity: 10,500 gallons of spent volatile organic compound waste and still bottoms.
- (oo) One (1) product storage tank, known as EU-TK 40, installed in 1984, vented to a catalytic thermal oxidizer, capacity: 3,300 gallons of spent volatile organic compound waste and still bottoms.
- (pp) One (1) product storage tank, known as EU-TK 41, installed in 1984, vented to a catalytic thermal oxidizer, capacity: 3,300 gallons of spent volatile organic compound waste and still bottoms.
- (qq) One (1) product storage tank, known as EU-TK 42, installed in 1984, capacity: 5,100 gallons of process water.
- (rr) One (1) product storage tank, known as EU-TK 50, installed in 1992, capacity: 6,900 gallons of waste volatile organic compounds.
- (ss) One (1) product storage tank, known as EU-TK 51, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,800 gallons of volatile organic compounds and distillation heels.
- (tt) One (1) product storage tank, known as EU-TK 52, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,900 gallons of volatile organic compounds.
- (uu) One (1) product storage tank, known as EU-TK 53, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,900 gallons of volatile organic compounds.
- (vv) One (1) over pressurization temporary accumulation vessel, known as EU-V 61, attached to the catalytic thermal oxidizer, installed in 1997, capacity: 165 gallons.
- (ww) Small pilot solvent recycling unit, known as EU-SP, catalytic thermal oxidizer, with batch capacity: 165 gallons.
- (xx) One (1) solid dispersion unit, known as EU-SD 1, consisting of one (1) 250 gallon tub and one (1) dispenser, exhausted through Stacks SD 1 and FI 1, vented to a catalytic thermal oxidizer, throughput capacity: 19,200 gallons per day.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

Facility Description [326 IAC 2-7-5(15)] continued

- (dd) One (1) product storage tank, known as EU-TK 17, installed in 1991, capacity: 6,500 gallons of volatile organic compounds.
- (ee) One (1) product storage tank, known as EU-TK 30, installed in 1983, capacity: 6,900 gallons of spent volatile organic compound waste.
- (ff) One (1) product storage tank, known as EU-TK 31, installed in 1983, capacity: 6,900 gallons of spent volatile organic compound waste.
- (gg) One (1) product storage tank, known as EU-TK 32, installed in 1983, capacity: 6,900 gallons of spent volatile organic compound waste.
- (hh) One (1) product storage tank, known as EU-TK 33, installed in 1983, capacity: 6,900 gallons of spent volatile organic compound waste.
- (ii) One (1) product storage tank, known as EU-TK 34, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (jj) One (1) product storage tank, known as EU-TK 35, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (kk) One (1) product storage tank, known as EU-TK 36, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (ll) One (1) product storage tank, known as EU-TK 37, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (mm) One (1) product storage tank, known as EU-TK 38, installed in 1983, capacity: 10,000 gallons of spent volatile organic compound waste.
- (nn) One (1) product storage tank, known as EU-TK 39, installed in 2001, vented to a catalytic thermal oxidizer, capacity: 10,500 gallons of spent volatile organic compound waste and still bottoms.
- (oo) One (1) product storage tank, known as EU-TK 40, installed in 1984, vented to a catalytic thermal oxidizer, capacity: 3,300 gallons of spent volatile organic compound waste and still bottoms.
- (pp) One (1) product storage tank, known as EU-TK 41, installed in 1984, vented to a catalytic thermal oxidizer, capacity: 3,300 gallons of spent volatile organic compound waste and still bottoms.
- (qq) One (1) product storage tank, known as EU-TK 42, installed in 1984, capacity: 5,100 gallons of process water.
- (rr) One (1) product storage tank, known as EU-TK 50, installed in 1992, capacity: 6,900 gallons of waste volatile organic compounds.
- (ss) One (1) product storage tank, known as EU-TK 51, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,800 gallons of volatile organic compounds and distillation heels.
- (tt) One (1) product storage tank, known as EU-TK 52, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,900 gallons of volatile organic compounds.
- (uu) One (1) product storage tank, known as EU-TK 53, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,900 gallons of volatile organic compounds.
- (vv) One (1) over pressurization temporary accumulation vessel, known as EU-V 61, attached to the catalytic thermal oxidizer, installed in 1997, capacity: 165 gallons.

Facility Description [326 IAC 2-7-5(15)] (continued)

- (jj) One (1) product storage tank, known as EU-TK 35, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (kk) One (1) product storage tank, known as EU-TK 36, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (ll) One (1) product storage tank, known as EU-TK 37, installed in 1984, capacity: 4,700 gallons of spent volatile organic compound waste.
- (mm) One (1) product storage tank, known as EU-TK 38, installed in 1983, capacity: 10,000 gallons of spent volatile organic compound waste.
- (nn) One (1) product storage tank, known as EU-TK 39, installed in 2001, vented to a catalytic thermal oxidizer, capacity: 10,500 gallons of spent volatile organic compound waste and still bottoms.
- (oo) One (1) product storage tank, known as EU-TK 40, installed in 1984, vented to a catalytic thermal oxidizer, capacity: 3,300 gallons of spent volatile organic compound waste and still bottoms.
- (pp) One (1) product storage tank, known as EU-TK 41, installed in 1984, vented to a catalytic thermal oxidizer, capacity: 3,300 gallons of spent volatile organic compound waste and still bottoms.
- (qq) One (1) product storage tank, known as EU-TK 42, installed in 1984, capacity: 5,100 gallons of process water.
- (rr) One (1) product storage tank, known as EU-TK 50, installed in 1992, capacity: 6,900 gallons of waste volatile organic compounds.
- (ss) One (1) product storage tank, known as EU-TK 51, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,800 gallons of volatile organic compounds and distillation heels.
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- (uu) One (1) product storage tank, known as EU-TK 53, installed in 1995, vented to a catalytic thermal oxidizer, capacity: 6,900 gallons of volatile organic compounds.
- (vv) One (1) over pressurization temporary accumulation vessel, known as EU-V 61, attached to the catalytic thermal oxidizer, installed in 1997, capacity: 165 gallons.
- (xx) One (1) solid dispersion unit, known as EU-SD 1, consisting of one (1) 250 gallon tub and one (1) dispenser, exhausted through Stacks SD 1 and FI 1, vented to a catalytic thermal oxidizer, throughput capacity: 19,200 gallons per day.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Administrative Amendment to a Part 70 Permit

Source Background and Description

Source Name:	Reclaimed Energy Company, Inc.
Source Location:	1500 Western Avenue, Connersville, Indiana 47331
County:	Fayette
SIC Code:	7389, 7398, 7299, 2869
Operation Permit No.:	T 041-6719-00015
Operation Permit Issuance Date:	June 6, 2001
Administrative Amendment No.:	041-14835-00015
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed an administrative amendment application from Reclaimed Energy Company, Inc. relating to the operation of their stationary chemical recycling plant.

Request

On August 21, 2001, Reclaimed Energy Company, Inc. submitted an application to replace an existing 12,000 gallon carbon steel spent volatile organic compound (VOC) waste and still bottoms storage tank, identified as Tank 39, with a new 10,500 gallon spent volatile organic compound (VOC) waste and still bottoms storage tank. The new tank shall be identified as Tank 39.

Existing Approvals

The source was issued Title V (041-6719-00015) on June 1, 2001. The source has been operating under this permit and First Administrative Amendment (041-14644-00015), issued on August 22, 2001.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the administrative amendment be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

UNRESTRICTED POTENTIAL TO EMIT DUE TO THE MODIFICATION:

The unrestricted potential to emit (UPTE) are the emissions from the new proposed tank. The emissions generated are volatile organic compounds (VOC) and the single HAP methylene chloride.

The following calculations determine the VOC and HAP UPTE based on storage of the same spent volatile organic compound (VOC) waste and still bottoms, a maximum design capacity of 10,500 gallons, a combined recycled material capacity of 81,900 gallons, combined UPTE of 13.4 tons VOC/yr and 29.20 tons methylene chloride (single HAP), emissions before controls, and 8760 hours of operation.

The UPTE due to the new proposed tank is determined as follows:

VOC:

$$\frac{10,500 \text{ gallons}}{81,900 \text{ gallons}} = \frac{X \text{ tons VOC/yr}}{13.4 \text{ tons VOC/yr}} \quad \text{where } X = 1.72 \text{ tons VOC/yr}$$

HAP (Methylene Chloride):

$$\frac{10,500 \text{ gallons}}{81,900 \text{ gallons}} = \frac{X \text{ tons HAP/yr}}{29.2 \text{ tons HAP/yr}} \quad \text{where } X = 3.74 \text{ tons HAP/yr}$$

EMISSIONS AFTER CONTROLS:

The tank emissions shall be controlled by an oxidizer with an overall control efficiency of 98%.

The following calculations determine the emissions after controls from the proposed tank 39 based on the emissions before controls and the specified overall control efficiency of 98%.

$$\text{VOC Emissions Before Controls (tons/yr)} * (1 - 0.98) = 0.03 \text{ tons VOC/yr}$$

$$\text{HAP Emissions Before Controls (tons/yr)} * (1 - 0.98) = 0.07 \text{ tons HAP/yr}$$

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	-
PM-10	-
SO ₂	-
VOC	1.72
CO	-
NO _x	-

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Pollutant	Potential To Emit (tons/year)
Combined HAPs	3.74

Justification for Revision

The Title V is being amended through a Part 70 administrative amendment pursuant to 326 IAC 2-7-11.

The proposed tank replacement is not a source modification under 326 IAC 2-7-10.5 because pursuant to 326 IAC 2-7-10.5(b), the owner or operator of a source may repair or replace an emissions unit or air pollution control equipment or components thereof without prior approval if the repair or replacement:

- (1) results in potential to emit for each regulated pollutant that is less than or equal to the potential to emit of the equipment or the affected emissions unit that was repaired or replaced,
- (2) is not a major modification under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-4.1, and
- (3) returns the emissions unit, process, or control equipment to normal operation after an upset, malfunction, or mechanical failure or prevents impending and imminent failure of the emissions unit, process, or control equipment.

The proposed tank will generate air pollutant PTE that will be less than the potential to emit of the existing tank being replaced, not be a major modification under 326 IAC 2-2, 2-3, or 2-4.1, and will prevent impending and imminent failure of the existing unit. Therefore, the proposed tank is not a Part 70 source modification.

However, even though the proposed tank is not a Part 70 source modification, the tank must be incorporated into the Part 70 permit. The proposed tank shall be incorporated into the Part 70 permit via an administrative amendment under 326 IAC 2-7-11(a)(8) which states that any revision that changes descriptive information without triggering any new applicable requirements or violate any permit terms is considered an administrative amendment to the Part 70 permit.

There are no new applicable requirements associated with the tank replacement and the replacement will not result in a violation of any existing permit terms. Therefore, the proposed replacement tank is determined to qualify for an administrative amendment.

County Attainment Status

The source is located in Fayette County.

Pollutant	Status
PM ₁₀	attainment or unclassifiable
SO ₂	attainment or unclassifiable
NO ₂	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Fayette County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.
- (b) Fayette County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Existing Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPS
Boiler (EU-BO 1)	1.51	1.51	0.07	0.31	3.85	15.40	0.00
Processes/Recycling	0.00	0.00	0.00	58.90	0.00	0.00	106.00
Insignificant Activities	2.00	2.00	1.00	1.00	1.00	3.00	0.50
Total Emissions	3.51	3.51	1.07	60.21	4.85	18.40	106.50

- (a) This existing source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.
- (b) This existing source is a Title V major stationary source because the combined hazardous air pollutant (HAP) PTE is greater than the applicable level of 25 tons per year.

Potential to Emit of Source After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this administrative amendment.

	Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Existing Source PTE	3.51	3.51	1.07	60.21	4.85	18.40	106.50
Modification PTE	-	-	-	-0.24	-	-	-0.54
Source After Proposed Revision	3.51	3.51	1.07	59.97	4.85	18.40	105.96

Part 70 Major Source Threshold	-	100	100	100	100	100	10 ind. 25 tot.
PSD Threshold Level	250	250	250	100	250	250	-

- (a) The proposed tank replacement is not major because the emissions after the modification are less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.
- (b) Since the potential to emit of all criteria pollutants from the source after the proposed replacement are less than 250 tons per year, the source is determined to still be a minor source pursuant to 326 IAC 2-2, PSD.
- (c) The proposed tank replacement will not change the status of the stationary source because the HAP emissions from the entire source will still be greater than the Part 70 major source thresholds.

Federal Rule Applicability

New Source Performance Standards (NSPS):

40 CFR 60, Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984:

The proposed replacement tank is not subject to the requirements of 40 CFR 60, Subpart Kb because the maximum capacity (10,500 gallons) is less than the least applicable tank capacity of 10,567 gallons.

There are no other NSPS that become applicable due to the proposed replacement.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

The applicable NESHAP, 40 CFR Part 63, Subpart DD still applies to replacement tank 39. Thus, no changes to the existing permit NESHAP requirements are necessary.

State Rule Applicability

Entire Source:

There are no entire source state rules that become applicable due to the proposed replacement because the preventive maintenance plan (326 IAC 1-6-3), opacity limitations (326 IAC 5-1), and emission statement requirements (326 IAC 2-6 and 2-7-5) already apply and the replacement does not affect the applicability of these rules.

Individual Facilities:

There are no individual facility state rules that become applicable due to the tank replacement because the 326 IAC 8-1-6 BACT and 326 IAC 2-7-5(13) preventive maintenance plan requirements already apply and the replacement does not affect the applicability of these rules.

Compliance Requirements

No changes to the compliance determination and monitoring requirements are necessary as a result of the proposed tank replacement.

Record Keeping and Reporting Requirements

No changes to the record keeping and reporting requirements are necessary as a result of the proposed tank replacement.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

1. Section A, Condition A.2: Emission Unit Summary:

The emission unit summary shall be amended as follows to reflect the new lower tank capacity of 10,500 gallons.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a)

(nn) One (1) product storage tank, known as EU-TK 39, installed in ~~1983~~ **2001**, vented to a catalytic thermal oxidizer, capacity: ~~42,000~~ **10,500** gallons of spent volatile organic compound waste and still bottoms.....

2. Section D.3, Unit Description:

The emission unit summary of Section D.3 shall be amended as follows to reflect the new lower tank capacity of 10,500 gallons.

Facility Description [326 IAC 2-7-5(15)] continued

(dd)

(nn) One (1) product storage tank, known as EU-TK 39, installed in ~~1983~~**2001**, vented to a catalytic thermal oxidizer, capacity: ~~12,000~~**10,500** gallons of spent volatile organic compound waste and still bottoms.....

3. Section D.6, Unit Description:

The emission unit summary of Section D.6 shall be amended as follows to reflect the new lower tank capacity of 10,500 gallons.

Facility Description [326 IAC 2-7-5(15)] (continued)

(jj)

(nn) One (1) product storage tank, known as EU-TK 39, installed in ~~1983~~**2001**, vented to a catalytic thermal oxidizer, capacity: 12,000**10,500** gallons of spent volatile organic compound waste and still bottoms.....

Conclusion

The operation of the proposed tank shall be subject to the conditions of the attached proposed Administrative Amendment 041-14835-00015.